

DESIGN AND CONSTRUCTION CONSIDERATION OF RIGID PAVEMENT

Prepared by: Nelson Ngo Shing Chai

ABSTRACT

The physical components of highway system include the right of way, the pavement, shoulders, safety appurtenances, signals and markings. The pavement and shoulders represent the most costly items associated with highway construction and maintenance. Since the pavement and shoulder structure are the most expensive items to construct and maintain, it is important that to have a basic understanding of pavement design principle. A stabilized material consists of aggregate material bound together with a cementing agent such as Portland cement, or asphalt cement. Highways that carry larger amounts of traffic with heavy axle loads require surfaces with asphalt concrete or Portland cement concrete to provide for all weather operations. These types of pavement can cost upward of several million RM per miles to construct. It is easy to see why the construction and maintenance of pavement infrastructure must be done in a cost-effective manner. Pavement provides two basic functions. First, the pavements help to guide the driver. The second function of the pavement is to support the vehicle loads.